

## DEFINITIONS AND SPECIAL INSTRUCTIONS

**1. Scope of survey**

This survey covers all companies engaged in the domestic manufacture of selected types of construction and surface mining machinery and equipment.

**2. Figures to be reported**

Companies with more than one establishment manufacturing the products covered by this survey are requested to complete a separate report form for each location. If you have not received a separate form for each of your establishments, please call the contact shown on the report form or write to the U.S. Census Bureau for additional forms. (We have begun to offer some flexibility in this requirement. Call the contact for details.)

**a. Quantity and value of shipments**

The figures on quantity and value of shipments should include the physical shipments of all products sold, transferred to other establishments within your company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns. Shipments to your own branches should be assigned the same value as comparable sales to unaffiliated customers; i.e., the value includes an appropriate allocation of company overhead and profit. Products bought and resold without further manufacture should not be included in shipments.

Tandem dig, carrying and hauling scraper units should be reported as two separate units.

When reporting machinery for mounting on tractors, shovel loaders, or other prime movers, report only the value of the mounting itself (codes 9121, 9124, 9206, and 9444). Report the prime mover separately in the appropriate item.

*Leased machines* — For construction machinery products which your company made for its own use (as for leasing or renting instead of for sale), report the number and estimated values, approximately the value of the products sold outright. If no such prices exist, base the value on the valuation placed on these items for tax, insurance, or similar purposes.

**b. Columnar structure of report**

When entering your figures on the report, please be sure to report the information in the correct columns.

*The columns are:*

Column 1 — Quantity of total shipments

Column 2 — Value of total shipments

(Columns 3 through 6 are not used for this survey)

**3. Definitions**

The product detail for this survey, as shown in the Reference List, is defined according to standard nomenclature for this industry.

*Net engine horsepower (NEHP)* — Net flywheel performance as measured by the manufacturer, with all standard accessories installed, operated, and corrected to 29.38 inches mercury (Hg) and temperature of 85 degrees Fahrenheit.

*Crawler loader* — Specially designed tracklaying tractor unit equipped at the factory with a shovel loader type mechanism. Report any standard crawler tractor as a tracklaying tractor if it is shipped with a shovel loader as a front-end attachment. Do so whether the loader is mounted and shipped with the tractor or is shipped separately. Report the shovel loader attachment mounted on a standard tractor separately in item code 9124.

*Excavator* — A commercial earth-moving machine equipped with a bucket-mounted front-end attachment. This attachment and its operating machinery are mounted on a 360 degree revolving superstructure.

*Crane* — A machine with front-end attachment functions performed by wire rope.

*Cable operated* — A machine with front-end attachment functions performed by wire rope.

*Hydraulic excavator* — A machine with front-end attachment functions performed hydraulically.

*Hydraulic crane* — A machine with 360-degree rotation on which the boom which is designed primarily for lifting the load by wire rope and can be extended, retracted, raised, and lowered hydraulically.

*Crawler-mounted* — A machine with two parallel continuous crawler or tread belts.

*Truck-mounted (rubber)* — A machine which generally has two engines, one to propel the carrier and another to power the work functions. A truck or carrier mounted machine will have two operator stations and is designed for on- and off-highway travel.

3. Definitions — Continued

*Pinned-on telescopic crane (item code 4209)* — A hydraulically powered multi-purpose rotating crane with fixed or telescoping booms designed to lift and place materials by winch and load line and which is mounted on a commercially available vehicle having a platform or body.

*Pinned-on articulated crane (item code 4209)* — A stationary or vehicle mounted hydraulically powered multi-purpose knuckle boom crane consisting of an inner and outer boom that can fold to a stowable position. Excluded are those machines commonly known as knuckle boom loaders.

*Unmounted cranes* — These cranes are classified under "Construction machinery for mounting" (item code 9124 or 9444, depending on whether used for construction or materials-handling).

*Attachments* — Include only attachments for cranes, excavators, or draglines sold separately, not shipped with the original machine, in item codes 4284 to 4293. Include the value of any attachments sold with the machine, with the value, f.o.b. plant, of that machine.

4. Comparability

If you also report in the Annual Survey of Manufactures (Form MA-10000), the sum of values for item codes shown in column (a) should correspond to the dollar values reported under product class codes indicated in column (b) below:

Current Industrial Reports (Form MA333D)  Item code (a)	Annual Survey of Manufactures  Product class codes (b)
1140 to 9124	3331201
9131 to 9444	3339237

# REFERENCE LIST

FORM <b>MA333D</b>			CONSTRUCTION MACHINERY
TOTAL SHIPMENTS (Domestic and export) (Report value in thousands of dollars)			
Product code	Item code	Item description	
3331201577	1140	<b>CRAWLER TRACTORS, CONTRACTORS' OFF-HIGHWAY-TYPE WHEEL TRACTORS, DOZERS, AND SELF-PROPELLED WHEELED LOG SKIDDERS</b>	
3331201599	2000	<b>Wheeled log skidders, self-propelled</b>	
		<b>Crawler tractors (except crawler loaders) and tracklaying and other contractors' off-highway-type wheel tractors and dozers (see item code 7184 for crawler loaders)</b>	
		<b>MIXERS, PAVERS, AND RELATED EQUIPMENT</b>	
		<b>For concrete, plaster, or mortar applications:</b>	
3331201222	3222	Concrete mixers (except plaster and mortar), portable, all sizes, either truck-mixer or agitator or otherwise	
3331201231	3231	Plaster and mortar mixers, all sizes	
3331201233	3233	Slipform concrete paving machines, including multipurpose, automated curb and gutter and concrete slipform pavers up to and including 34' wide	
3331201239	3239	Concrete trowels	
3331201241	3240	Concrete vibrators (electric motor, gasoline engine, structural high-cycle, pneumatic, etc.	
3331201244	3242	Concrete screeds (hand-propelled or winch type)	
3331201247	3243	Concrete batching plants, bin and batch (for concrete aggregate only and bulk cement	
3331201251	3250	Concrete pumps, mobile	
3331201256	3256	Other concrete, plaster, and mortar mixing and paving machinery	
		<b>For asphalt or bituminous applications:</b>	
3331201266	3266	Bituminous distributors	
3331201271	3271	Bituminous pavers, self-propelled:	
3331201275	3275	21,999 lbs. gross weight and under (basic unit)	
		22,000 lbs. gross weight and over (basic unit)	
3331201282	3282	Asphalt plants (including cold mix central plants):	
3331201284	3284	Less than 7500 pounds (239 tons per hour)	
		7500 pounds and over (240 tph and over)	
3331201286	3285	Bituminous stabilization mixing equipment, including central mixing plants and mix-in-place	
3331201289	3289	Bituminous cold planers/milling machines (self-propelled)	
3331201291	3291	Other asphalt and bituminous mixing and paving machinery	
3331201295	3295	<b>Other products, for use in either concrete or bituminous applications</b>	

**REFERENCE LIST — Continued**

FORM <b>MA333D</b>		
<b>TOTAL SHIPMENTS (Domestic and export)</b> <i>(Report value in thousands of dollars)</i>		
Product code	Item code	Item description
		<b>POWER CRANES, DRAGLINES, AND EXCAVATORS, INCLUDING SURFACE MINING EQUIPMENT; AND ATTACHMENTS</b>  <b>Excavators, hydraulic operated:</b>  Crawler-mounted, rated size in metric tons: Not more than 24 metric tons (26.46 short tons) More than 24 metric but not more than 40 metric tons (44.09 short tons) More than 40 metric tons  Wheel (rubber) mounted, all sizes  <b>Cranes, lattice boom:</b>  Crawler-mounted, maximum working load: Not more than 110 metric tons (121.25 short tons) More than 110 metric tons  Wheel (rubber) mounted, all sizes  <b>Cranes, hydraulic-operated, telescopic boom:</b>  Wheel cranes (integral), multiple control stations, rubber-mounted, maximum working load of: Not more than 18 metric tons (19.84 short tons) More than 18 but not more than 27 metric tons (29.76 short tons) More than 27 but not more than 50 metric tons (55.12 short tons) More than 50 metric tons  Pinned-on type, telescopic and articulated  Wheel cranes, one control station, self-propelled, rubber-mounted, maximum working load of: Not more than 16 metric tons (17.64 short tons) More than 16 metric tons but not more than 22.7 metric tons (25.02 short tons) More than 22.7 metric tons  All-terrain cranes, maximum working loads of: Not more than 20 metric tons (22.05 short tons) More than 20 metric tons but not more than 35 metric tons (38.58 short tons) More than 35 metric tons but not more than 110 metric tons (121.25 short tons) More than 110 metric tons  <b>Other cranes and excavators, not elsewhere classified:</b>  Pedestal or shipmounted marine cranes  All other cranes not elsewhere classified, including locomotive wrecking, cable-operated excavators, and draglines  <b>Attachments (sold separately) for power cranes, draglines, and excavators:</b> Hoe Dragline buckets, all sizes Clamshell/grapple All other attachments, not elsewhere classified
3331201111	<b>4073</b>	
3331201114	<b>4074</b>	
3331201117	<b>4075</b>	
3331201129	<b>4093</b>	
3331201132	<b>4144</b>	
3331201134	<b>4146</b>	
3331201145	<b>4155</b>	
3331201152	<b>4201</b>	
3331201154	<b>4203</b>	
3331201156	<b>4205</b>	
3331201158	<b>4207</b>	
3331201167	<b>4209</b>	
3331201171	<b>4210</b>	
3331201174	<b>4216</b>	
3331201177	<b>4222</b>	
3331201182	<b>4231</b>	
3331201184	<b>4233</b>	
3331201186	<b>4235</b>	
3331201188	<b>4237</b>	
3331201194	<b>4245</b>	
3331201199	<b>4264</b>	
33312011A4	<b>4284</b>	
33312011A5	<b>4286</b>	
33312011A7	<b>4291</b>	
33312011AA	<b>4293</b>	

**REFERENCE LIST — Continued**

FORM <b>MA333D</b>		
<b>TOTAL SHIPMENTS (Domestic and export)</b> <i>(Report value in thousands of dollars)</i>		
Product code	Item code	Item description
3331201460	<b>7160</b>	<b>LOADERS</b>
		<b>Skid steer loaders, 4-wheel drive skid steer, all sizes</b>
3331201471	<b>7171</b>	<b>Wheel loaders, rear engine mount, integral design, 4-wheel drive, non-skid steer:</b>
3331201475	<b>7172</b>	Under 79 net engine horsepower (NEHP)
3331201479	<b>7173</b>	80–149 NEHP
3331201483	<b>7174</b>	150–249 NEHP
		250 NEHP and over
3331201488	<b>7184</b>	<b>Crawler loaders</b>
3331201495	<b>7195</b>	<b>Integral-design tractor shovel loader/backhoes (wheel tractor-chassis shipped as part of front engine mount contractor tractor)</b>
33312016D1	<b>8601</b>	<b>OFF-HIGHWAY TRUCKS, COAL HAULERS, TRUCK-TYPE TRACTOR CHASSIS, TRAILERS, AND WAGONS; GRADERS; ROLLERS AND COMPACTORS; ROUGH-TERRAIN FORKLIFTS; AND SCRAPERS</b>
33312016D3	<b>8603</b>	<b>Rough-terrain forklifts (integral units only):</b>
33312016D5	<b>8605</b>	Vertical mast, 2-wheel drive
		Vertical mast, 4-wheel drive
		Telescopic handlers, 2- and 4-wheel drive
		<b>Motor graders and light maintainers:</b>
3331201661	<b>8608</b>	Under 144 net engine horsepower (NEHP)
3331201667	<b>8616</b>	145 NEHP and over
3331201371	<b>8621</b>	<b>Off-highway rear dump haulers</b>
3331201376	<b>8625</b>	<b>Other off-highway trucks, coal haulers, truck-type tractor chassis, trailers, and wagons</b>
33312016E5	<b>8636</b>	<b>Scraper bowls</b>
		<b>Rollers and compactors:</b>
3331201671	<b>8651</b>	Static smooth steel wheel rollers, tandem:
3331201673	<b>8652</b>	Under 3 metric tons (3.31 short tons)
3331201676	<b>8653</b>	At least 3 but less than 5.5 metric tons (6.06 short tons)
		5.5 metric tons and over
3331201682	<b>8659</b>	Pneumatic tire rollers
3331201687	<b>8666</b>	Vibratory single drum with 1 or 2 drive wheels:
3331201689	<b>8668</b>	Under 5 metric tons (5.51 short tons)
3331201692	<b>8671</b>	At least 5 but less than 8 metric tons (8.82 short tons)
		8 metric tons and over
3331201696	<b>8672</b>	Vibratory double drum, two drums vibrating:
3331201699	<b>8676</b>	Under 5 metric tons (5.51 short tons)
33312016A2	<b>8679</b>	At least 5 but less than 8 metric tons (8.82 short tons)
		8 metric tons and over
33312016A6	<b>8690</b>	All other compaction equipment, except hand-held; including embankment and landfill compactors, towed roller and double drum compactors with one drum vibrating

**REFERENCE LIST— Continued**

FORM **MA333D**

**TOTAL SHIPMENTS (Domestic and export)**  
(Report value in thousands of dollars)

Product code	Item code	Item description
		<b>DITCHERS AND TRENCHERS, SELF-PROPELLED (INTEGRAL UNITS ONLY)</b>
		<b>Ladder-type digging element:</b>
33312016J3	<b>9114</b>	Under 2,000 lbs. gross weight
33312016J5	<b>9115</b>	2,000 to 4,999 lbs. gross weight
33312016J7	<b>9117</b>	5,000 lbs. gross weight and over
33312016JJ	<b>9118</b>	<b>Wheel-type digging element</b>
		<b>CONSTRUCTION MACHINERY FOR MOUNTING ON TRACTORS, TRUCKS, AND OTHER PRIME MOVERS, EXCEPT WINCHES AND MATERIALS-HANDLING EQUIPMENT</b>
3331201782	<b>9121</b>	<b>Backhoes</b> (either shipped for mounting separately or already mounted on an integral unit)
3331201799	<b>9124</b>	<b>Other</b> construction machinery for mounting, including sidebooms, pipehandlers, dozers, front-end loaders, shovel loaders, logging arches, rippers, rooters, continuous ditching and trenching attachments, fork lift attachments, cranes, cable power control units, hydraulic power control units, etc.; except winches and materials-handling equipment
		<b>AERIAL WORK PLATFORMS; AND WINCHES AND MATERIALS-HANDLING MACHINERY FOR MOUNTING ON TRACTORS, TRUCKS, AND OTHER PRIME MOVERS</b>
		<b>Aerial work platforms:</b>
3339237111	<b>9131</b>	Boom type, self-propelled
3339237113	<b>9133</b>	Scissors type, self-propelled
3339237115	<b>9135</b>	Not self-propelled, boom and scissors type
3339237117	<b>9137</b>	Truck mounted
		<b>Machinery for mounting:</b>
3339237231	<b>9206</b>	Winches (towing, logging, and oil-field types)
3339237239	<b>9444</b>	Other materials-handling machinery for mounting

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